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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/790,844

03/03/2004

Mathias Rollwage

R.304240

2494

7590

09/21/2005

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EXAMINER

JACKSON, ANDRE K

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/790,844 | ROLLWAGE ET AL. | |
| | Examiner | Art Unit | |
| | André K. Jackson | 2856 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign mentioned in the claims (18). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because empty diagram boxes are impermissible under 37 CFR §1.83(a) which recites as follows:

"The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled

*representation (e.g., a **labeled** rectangular box)." (Emphasis added by Examiner)*

3. The empty diagram box 23, found in Figures 1 and 2 of the drawings, must be labeled with an appropriate descriptive phrase in addition to the reference legend already present. Appropriate correction is required.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the container" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Boscolo.

Regarding claim 1, Boscolo discloses in the patent entitled "Container liquid level sensing utilizing a filling tube" the tank including a sound guide conduit disposed in the container, a fluid feeding device in the tank, and at least one ultrasonic transducer disposed near one end of the sound guide conduit for generating ultrasonic pulses (15) and a transducer for receiving (16) the ultrasonic pulses reflected in the region of the surface of the fluid in the container, the improvement wherein the device for measuring the fluid level is disposed in the container on an outer circumference of the fluid feeding device (Figure 1).

Regarding claim 2, Boscolo discloses where the sound guide conduit and/or the ultrasonic transducer is cast, glued, welded, clipped, or screwed onto the outer circumference of the fluid feeding device (Figures 1,2,4).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boscolo in view of Cummings.

Regarding claim 5, Boscolo does not disclose where the sound guide conduit includes at least one bend with one deflection each and/or at least one straight region with a conduit slope angle. However, Cummings discloses in the patent entitled "Acoustic liquid level measuring apparatus" where the sound guide conduit includes at least one bend with one deflection each and/or at least one straight region with a conduit slope angle (Figure 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boscolo to include where the sound guide conduit includes at least one bend with one deflection each and/or at least one straight region with a conduit

slope angle. By adding this feature the apparatus would be able to give a direct measurement of the liquid.

Regarding claim 7, Boscolo does not disclose where the sound guide conduit has at least two openings communicating with the interior of the container. However, Cummings discloses where the sound guide conduit has at least two openings communicating with the interior of the container (Figure 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boscolo to include where the sound guide conduit includes at least one bend with one deflection each and/or at least one straight region with a conduit slope angle. By adding this feature the apparatus would be able to compensate for pressure and equalization with the tank.

10. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boscolo in view of Shuler et al.

Regarding claim 6, Boscolo does not disclose where the sound guide conduit comprises at least one reference reflection surface. However, Shuler et al. disclose in the patent entitled "Water level measurement device" where the sound guide conduit comprises at least one reference reflection surface (3). Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Boscolo to include where the sound guide conduit comprises at least one reference reflection surface. By adding this feature the apparatus would be able to give a standard measurement within the container.

Regarding claim 9, Boscolo does not disclose where the ultrasonic transducer is simultaneously a transmitter and a receiver. However, Shuler et al. disclose that it is known to use an ultrasonic transducer that is simultaneously a transmitter and a receiver (2) for liquid level measurement. Therefore, it would have been one of ordinary skill in the art at the time the invention was made to modify Boscolo to include where the ultrasonic transducer is simultaneously a transmitter and a receiver. By adding this feature the apparatus would be more compact with less components.

11. Claims 3,4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to André K.

Art Unit: 2856


Jackson whose telephone number is (571) 272-2196. The examiner can normally be reached on Mon.-Thurs. 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.J.

September 16, 2005


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800